



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,158	10/31/2003	Jeffrey D. Carnevali	NPI-019	9849

7590 09/22/2005

Charles J. Rupnick
PO Box 46752
Seattle, WA 98146

EXAMINER

STERLING, AMY JO

ART UNIT	PAPER NUMBER
----------	--------------

3632

DATE MAILED: 09/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/698,158	Applicant(s) CARNEVALI, JEFFREY D.	
	Examiner Amy J. Sterling	Art Unit 3632	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2005.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-21 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is a non-final Office Action for application number 10/698,158 Flexible Support Arm filed on 10/31/03. Claims 1-21 are pending. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/25/05 has been entered.

Claim Rejections - 35 USC § 102

Claims 1-4, 8, 9 and 14-16 are rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent No. 6648376 to Christianson.

The patent to Christianson discloses a flexible support having a metal and plastic support base (14, lower end of 20) with a tubular aperture opening in one surface, a metal and plastic mounting bracket (12, upper end of 20) having an tubular aperture opening in one surface and a permanently bendable continuous solid metal rod (the rod portions are solid) (16, See Col. 2, line 4 for material selection) having a substantially constant cross-section between the first and second ends and having a first end installed in the opening of the support base (14) and fused directly by ultrasonic welding (See Col. 6, lines 55-56) or metal-to-metal fusible, to the support base and having a

Art Unit: 3632

second end installed in the opening of the mounting bracket and fused directly by ultrasonic welding to the mounting bracket (12), and a flexible plastic sheath (10). Christianson teaches that the support base and mounting bracket openings further comprise a second larger counter-bored opening into which an end of the sheath is inserted.

Christianson also discloses the method of forming a support base (14) having a tubular aperture therein and forming a mounting bracket (12) with a tubular aperture therein and fusing the ends of a permanently bendable solid metal rod (16) to both of the apertures.

Claim Rejections - 35 USC § 103

Claims 5, 10 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 6648376 to Christianson as applied to claims 1, 2 and 4 above and further in view of United States Patent No. 4020575 to Kruger et al.

Christianson teaches the basic inventive concept including that the mounting bracket (12, 20) and the support base (14, 20) include plastic.

Christianson does not specifically teach that the plastic are ultrasonically weldable plastic. Christianson also does not teach the method of ultrasonically weldable plastic.

Kruger et al. teaches a device with ultrasonically weldable plastic and the method of using ultrasonically weldable plastic used for securely bonding two elements together. (See Col. 1, line 37 and Col. 2, line 12).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made from the teachings of Kruger et al. to have made the mounting bracket and support base of weldable plastic and to use the plastic for a secure bond between the elements.

Claims 6, 13, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 6648376 to Christianson and in view of United States Patent No. 4020575 to Kruger et al. as applied to claims 1, 2, 4, 5, 9 and 16 above and further in view of United States Patent No. 5842670 to Nigoghosian.

Christianson and Kruger et al. teach the basic inventive concept, including the method of installing a flexible sheath (10) around a solid metal rod (16).

Christianson and Kruger et al. do not teach that the rod is made from aluminum, copper or coated copper and the support base and mounting bracket are made of aluminum or the method of forming a support base and mounting bracket of weldable aluminum material.

Nigoghosian discloses applicant's basic inventive concept, all the elements which are shown above and including a solid flexible rod (14) or the rest of the device which is made from a weldable material such as copper or aluminum (See Col, 3, lines 38-39 for material selection), used because the properties of such a metal makes them weldable. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made from the teachings of Nigoghosian to have made the

Art Unit: 3632

device of any suitable material or method of forming them from any suitable material, in order to easily attach the components to each other.

Claims 7, 19 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 6648376 to Christianson and in view of United States Patent No. 4020575 to Kruger et al. and in view of United States Patent No. 5842670 to Nigoghosian as applied to claims 1, 2, 4-6, 16 and 17 above and further in view of United States Patent No. 6637642 to Lingnau.

Christianson, Kruger et al. and Nigoghosian show the basic inventive concept with the exception that they do not teach that the metal rod is made of upset metal finish or upset surface material or the method of upsetting the metal around the rod.

Lingnau discloses solid state welding including teaching that the upset finish of the metal can and will affect the welding profile. (See Col. 8, lines 6-24). Lingnau also teaches method of upsetting of the metal in order to change the welding profile. Therefore it would have been obvious to make the metal tubing with an upset finish on the surface, in order to further change the welding characteristics of the metal rod.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 6648376 to Christianson and in view of United States Patent No. 4020575 to Kruger et al. as applied to claim 10 above and further in view of United States Patent No. 6637642 to Lingnau

Christianson and Kruger et al. and show the basic inventive concept with the exception that they do not teach that the metal rod is made of upset metal finish or upset surface material.

Lingnau discloses solid state welding including teaching that the upset finish of the metal can and will affect the welding profile. (See Col. 8, lines 6-24). Therefore it would have been obvious to make the metal tubing with an upset finish on the surface, in order to further change the welding characteristics of the metal rod.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 6648376 to Christianson and in view of United States Patent No. 4020575 to Kruger et al. and in view of United States Patent No. 6637642 to Lingnau as applied to claims 10 and 11 above and in further view of United States Patent No. 5842670 to Nigoghosian.

Christianson, Kruger et al. and Lingnau do not teach that the rod made of aluminum, copper or coated copper.

Nigoghosian discloses applicant's basic inventive concept, all the elements which are shown above and including a solid flexible rod (14) which is made from a weldable material such as copper or aluminum (See Col. 3, lines 38-39 for material selection), used because the properties of such a metal makes them weldable. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made from the teachings of Nigoghosian to have made the rod of any suitable weldable material, in order to easily attach the components to each other.


Response to Arguments

The applicant has argued that the Christianson reference fails to show that the metal rod is both a continuous solid metal rod and is bendable (See Remarks page 7, lines 16-17). This is unpersuasive in that claim 1 is being argued narrower than claimed. The term "solid" has been deleted from the claim. The metal rod is both "continuously metal" and "bendable" at each joint as shown bent in Fig. 3.

The applicant has also argued that the Christianson reference does not show a metal rod of a substantially constant cross section. This is unpersuasive as well in that each piece (16) has a substantially similar cross section as the next piece.

Conclusion

Any inquiry concerning this communication should be directed to Amy J. Sterling at telephone number 571-272-6823. The examiner can normally be reached (M-F 8 a.m.-5:00 p.m.). If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Robert Olszewski can be reached at 571-272-6788. The fax machine number for the Technology center is 571-273-8300 (formal amendments) or 571-273-6823 (informal amendments). Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center receptionist at 571-272-3600.


Amy J. Sterling
9/13/05